Lloyd's Register

# Rules and Regulations for the Classification of Ships, July 2008

## Notice No. 6

Updated version of Notice No. 6 incorporating Errata Note

Effective Date of Latest Amendments:

*See* page 1

Issue date: December 2008

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# RULES AND REGULATIONS FOR THE CLASSIFICATION OF SHIPS, *July 2008*

## Notice No. 6

This Notice contains amendments within the following Sections of the *Rules and Regulations for the Classification of Ships, July 2008.* The amendments are effective on the dates shown:

| ***Part*** | ***Chapter*** | ***Section*** | ***Effective date*** |
|---|---|---|---|
| 3 | 3 | 4 | Corrigenda |
| 3 | 3 | 4 | 1 January 2009 |
| 3 | 11 | 7 | 1 January 2009 |
| 3 | 13 | 8 | 1 January 2009 |
| 4 | 2 | 8 | 1 January 2009 |

It will be noted that the amendments also include corrigenda, which are effective from the date of this Notice.

The *Rules and Regulations for the Classification of Ships, July 2008* are to be read in conjunction with this Notice No. 6. The status of the Rules is now:

| | | |
|---|---|---|
| Rules for Ships | Effective date: | July 2008 |
| Notice No. 1 | Effective dates: | 1 August 2008 & Corrigenda |
| Notice No. 2 | Effective dates: | 1 January 2009 &Corrigenda |
| Notice No. 3 | Effective dates: | 1 November 2008 & Corrigenda |
| Notice No. 4 | Effective dates: | 1 May 2007 & 1 July 2008 |
| Notice No. 5 | Effective dates: | 1 January 2009 & Corrigenda |
| Notice No. 6 | Effective dates: | 1 January 2009 & Corrigenda |

# Part 3, Chapter 3
# Structural Design

**CORRIGENDA**

## ■ *Section 4*
## Bulkhead requirements

### 4.2 Collision bulkhead

*(Part only shown)*
*4.2.2* The collision bulkhead in passenger ships is to be in accordance with the following:

(b) If a ship has a long forward superstructure, the forepeak or collision bulkhead shall be extended weathertight to the deck next above the bulkhead deck. The extension need not be fitted directly over the bulkhead below, provided it is located within the limits specified in Table 3.4.3 ~~with the exemption permitted by 4.5.3~~ and the part of the bulkhead deck which forms the step is made effectively weathertight.

**Effective date 1 January 2009**

### 4.5 Watertight recesses, flats and loading ramps

~~*4.5.3* In ships fitted with bow doors, in which a sloping loading ramp forms part of the collision bulkhead above the freeboard or bulkhead deck, that part of the ramp which is more than 2,30 m above the freeboard or bulkhead deck may extend forward of the minimum limit specified in Table 3.4.2 or Table 3.4.3 as appropriate. Such a ramp is to comply with Pt 4, Ch 2,8.2.5.~~

# Part 3, Chapter 11
# Closing Arrangements for Shell, Deck and Bulkheads

**Effective date 1 January 2009**

## ■ *Section 7*
## Tanker access arrangements and closing appliances

### 7.1 Materials

*7.1.1* Covers for access hatches, tank cleaning and other openings to cargo tanks and adjacent spaces are to be manufactured from ~~mild~~ steel complying with the Rules for Materials ~~(Part 2)~~.

# Part 3, Chapter 13
# Ship Control Systems

**Effective date 1 January 2009**

## ■ *Section 8*
## Mooring of ships at single point moorings

### 8.1 General

*8.1.2* A ship provided with mooring arrangements in accordance with the requirements of this Section will be eligible to be assigned the Class notation ~~**SPM**~~ **SPM4** where a single mooring line arrangement is provided for and **DSPM** where a dual mooring line arrangement is provided for, *see* Fig. 13.8.1.

### 8.2 Arrangements

*8.2.1* The ship is to be fitted with bow chain stoppers and/or Smit-Type Brackets, and bow fairleads. In addition, pedestal roller fairleads may be required for alignment purposes but a direct straight lead from the chain stopper to the winch storage drum is the preferred arrangement. However, consideration of safety and protection from risk of injury to mooring personnel should take priority in determining whether pedestal rollers should be fitted as well as their number and positioning.

**Table 13.8.1 Deadweight group for shipboard fittings requirements**

| Group | Deadweight in tonnes |
|---|---|
| I | ~~< 150 000~~ ≤ 100 000 |
| II | ~~≥ 150 000~~ > 100 000 ~~< 350 000~~ ≤150 000 |
| III | ~~≥ 350 000~~ > 150 000 |

*8.2.3* Bow chain stoppers:

(a) The number, chain cable size and minimum safe working load of bow chain stoppers should be as given in Table 13.8.2.

(b) Bow chain stoppers should be located between 2,7 m and 3,7 m aft of the bow fairlead and should be positioned so as to give correct alignment with the bow fairlead and the pedestal fairlead or the storage drum ~~end~~ of the winch ~~or capstan~~, *see* Fig. 13.8.1.

(c) The leading edge of the stopper base plate is to be suitably faired to allow unimpeded entry of the combination chafe chain into the stopper. The chain referred to~~,~~ forms part of the standardized SPM equipment.

(d) The safety factor on yield of bow chain stoppers should be a minimum of 2 when the safe working load is applied.

~~(d)~~ (e) Details of bow chain stoppers should be submitted for approval.

**Table 13.8.2 Fittings requirements for deadweight group**

| Group | Chain size, in mm | No. of chain stoppers | SWL, in kN (tonnes) |
|---|---|---|---|
| I | 76 | 1, *see* Note | 1960 (200) |
| II | 76 | ~~2~~ 1, *see* Note | ~~1960 (200)~~<br>2450 (250) |
| III | 76 | 2 | ~~2450 (250)~~<br>3430 (250) |

NOTE
Ships in this size range may elect to fit two stoppers to ensure full range terminal acceptance, *see* 8.1.2.

*(Part only shown)*
*8.2.4* Smit-Type Brackets:

(a) Smit-Type Brackets may be fitted in lieu of bow chain stoppers for Group I and II. The fitting of Smit-Type Brackets in lieu of bow chain stoppers for Group III will be specially considered. The required number and safe working load are as given in Table 13.8.2 for bow chain stoppers.

(b) The scantlings of the pin, connecting brackets and welded attachments to the baseplate are to be determined in association with a horizontal load of ~~1,5 x SWL~~ 2 x SWL and a permissible shear stress of 78 N/mm$^2$ (8 kg/mm$^2$).

(c) Where fitted, Smit-Type Brackets should be located between 2,7 m and 3,7 m aft of the bow fairlead and should be positioned so as to give correct alignment with the bow fairlead and pedestal fairlead or the storage drum ~~end~~ of the winch ~~or capstan~~, *see* Fig. 13.8.1.

*8.2.5* The forecastle deck in way of bow chain stoppers or Smit-Type Brackets is to have a minimum thickness of 15 mm and is to be suitably reinforced to resist horizontal loads equal to ~~1,5 x SWL~~ 2 x SWL as given in Table 13.8.2.

*(Part only shown)*
*8.2.6* Bow fairleads:

(a) One centrally located bow fairlead should be provided for ships ~~up to 150,000 tonnes deadweight (Group I)~~ fitted with one bow chain stopper or Smit-Type bracket. Two bow fairleads should be provided for ships ~~larger than 150,000 tonnes deadweight (Groups II and III)~~ fitted with two bow chain stoppers or Smit-type brackets, *see* Fig. 13.8.1.

(d) The scantlings of the fairlead are to be determined in association with a load of 2 x SWL with hawser angles up to 90 degrees from the ship's centre line, both port and starboard in the horizontal plane and to 30 degrees above and below horizontal in the vertical plane.

~~(d)~~ (e) Details of bow fairleads and their attachment to the bulwark should be submitted for approval.

*8.2.7* Pedestal roller fairleads:

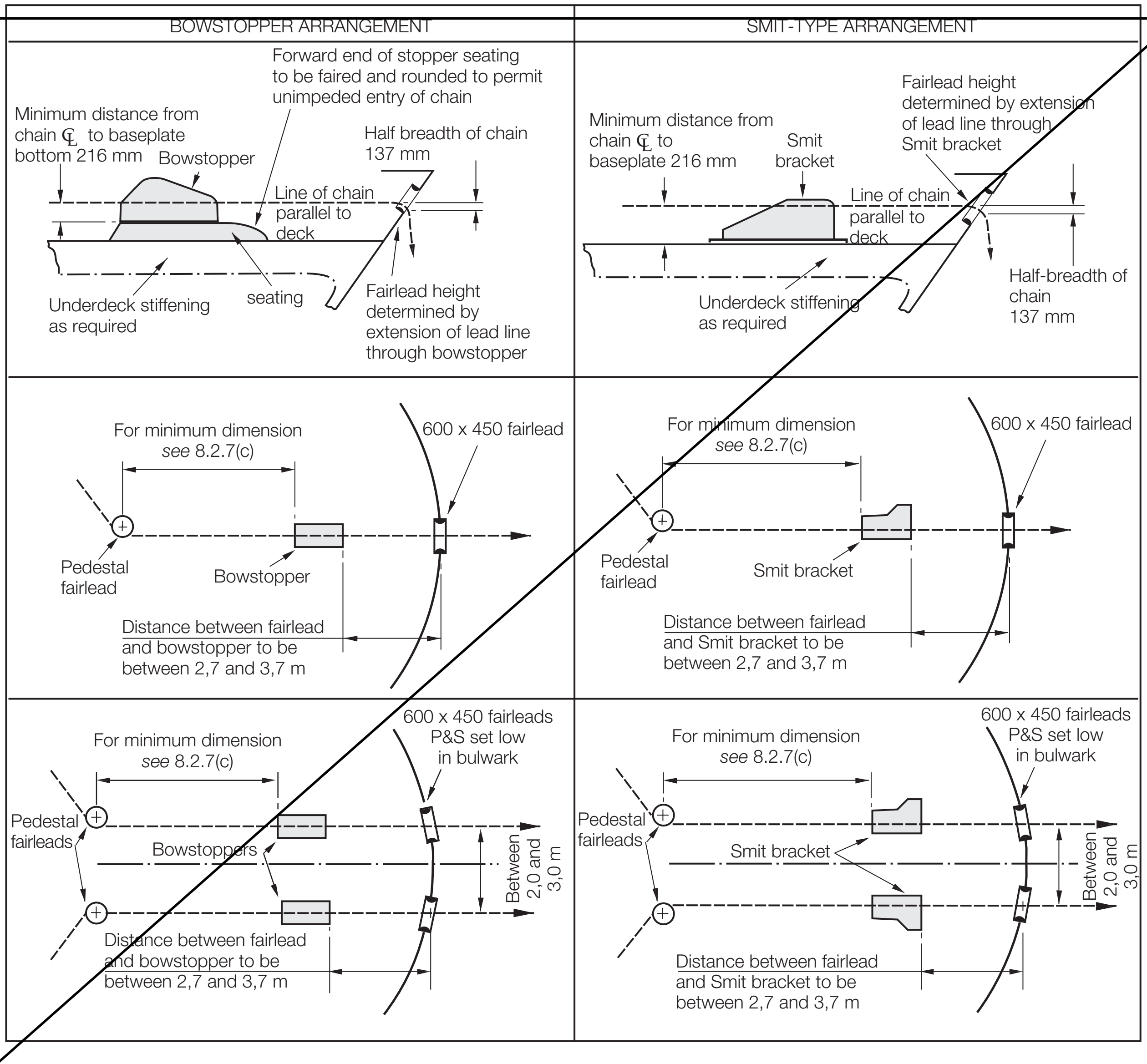
(a) Pedestal roller fairleads should have a minimum radius equal to 10 times the radius of wire mooring ropes with a fibre core, seven times the radius of wire mooring ropes with a steel core or three times the radius of synthetic mooring ropes.

(b) The number of pedestal roller fairleads ~~should correspond to the number of bow chain stoppers or Smit-Type Brackets~~ used for each bow chain stopper should not exceed two and the angle subtended by the change of direction of the pick-up rope should be minimal.

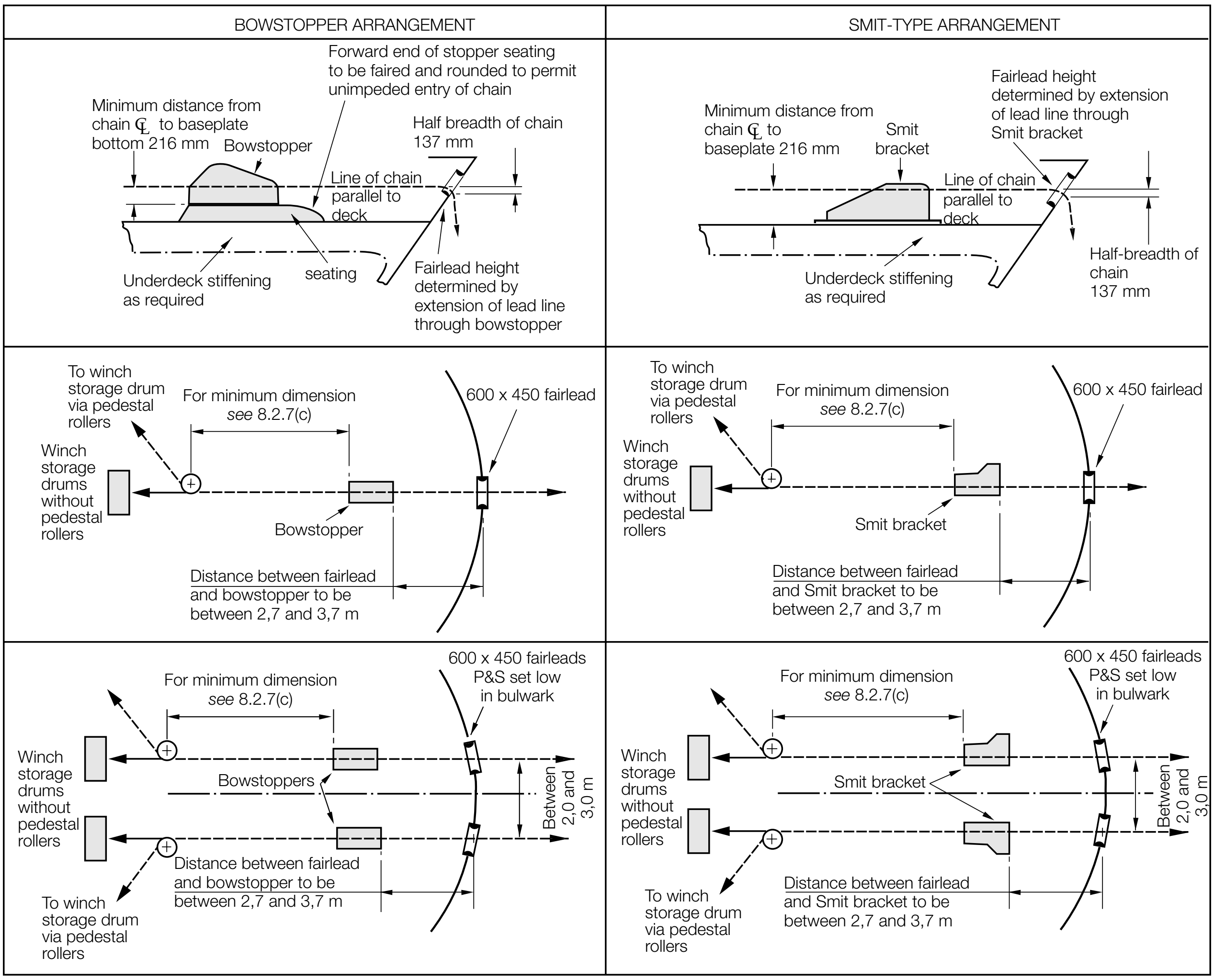
(c) The minimum distance of pedestal roller fairleads from the bow chain stopper or Smit-Type Bracket should be ~~4,5 m~~ 3,0 m. Any variation in the minimum distance will be specially considered.

(d) Details of local strengthening of the forecastle deck in way of pedestal roller fairleads should be submitted for approval.

*8.2.8* The winch drum ~~or capstan~~ used for handling the mooring gear should be capable of exerting a continuous duty pull of not less than 147 kN (15 tonnes) and be of sufficient size to accommodate 150 m of 80 mm diameter rope. Winch drum ends (warping ends) to handle pick-up ropes should be avoided. Remotely-operated winch storage drums are recommended.


BOWSTOPPER ARRANGEMENT
SMIT-TYPE ARRANGEMENT
Forward end of stopper seating to be faired and rounded to permit unimpeded entry of chain
Minimum distance from chain ℄ to baseplate bottom 216 mm
Bowstopper
Half breadth of chain 137 mm
Line of chain parallel to deck
Underdeck stiffening as required
seating
Fairlead height determined by extension of lead line through bowstopper
Fairlead height determined by extension of lead line through Smit bracket
Minimum distance from chain ℄ to baseplate 216 mm
Smit bracket
Line of chain parallel to deck
Half-breadth of chain 137 mm
Underdeck stiffening as required
For minimum dimension *see* 8.2.7(c)
600 x 450 fairlead
Pedestal fairlead
Bowstopper
Distance between fairlead and bowstopper to be between 2,7 and 3,7 m
For minimum dimension *see* 8.2.7(c)
600 x 450 fairlead
Pedestal fairlead
Smit bracket
Distance between fairlead and Smit bracket to be between 2,7 and 3,7 m
600 x 450 fairleads P&S set low in bulwark
For minimum dimension *see* 8.2.7(c)
Pedestal fairleads
Bowstoppers
Between 2,0 and 3,0 m
Distance between fairlead and bowstopper to be between 2,7 and 3,7 m
600 x 450 fairleads P&S set low in bulwark
For minimum dimension *see* 8.2.7(c)
Pedestal fairleads
Smit bracket
Between 2,0 and 3,0 m
Distance between fairlead and Smit bracket to be between 2,7 and 3,7 m

~~**Fig. 13.8.1 Positioning of fairleads, chainstoppers and pedestal roller leads**~~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Smit bracket
Line of chain parallel to deck
Underdeck stiffening as required
Half-breadth of chain 137 mm
To winch storage drum via pedestal rollers
For minimum dimension see 8.2.7(c)
600 x 450 fairlead
Winch storage drums without pedestal rollers
Bowstopper
Distance between fairlead and bowstopper to be between 2,7 and 3,7 m
To winch storage drum via pedestal rollers
For minimum dimension see 8.2.7(c)
600 x 450 fairlead
Winch storage drums without pedestal rollers
Smit bracket
Distance between fairlead and Smit bracket to be between 2,7 and 3,7 m
600 x 450 fairleads P&S set low in bulwark
For minimum dimension see 8.2.7(c)
Winch storage drums without pedestal rollers
Bowstoppers
Between 2,0 and 3,0 m
Distance between fairlead and bowstopper to be between 2,7 and 3,7 m
To winch storage drum via pedestal rollers
600 x 450 fairleads P&S set low in bulwark
For minimum dimension see 8.2.7(c)
Winch storage drums without pedestal rollers
Smit bracket
Between 2,0 and 3,0 m
To winch storage drum via pedestal rollers
Distance between fairlead and Smit bracket to be between 2,7 and 3,7 m

**Fig. 13.8.1 Positioning of fairleads, chainstoppers and pedestal roller leads**

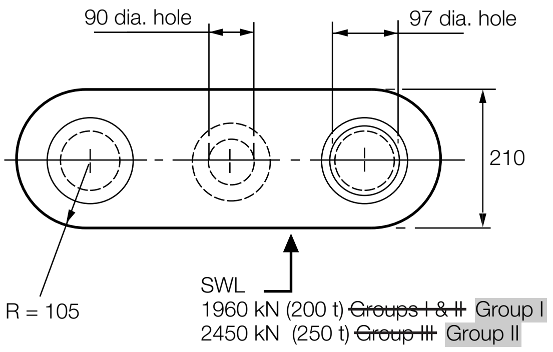
90 dia. hole
97 dia. hole
210
R = 105
SWL
1960 kN (200 t) ~~Groups I & II~~ Group I
2450 kN (250 t) ~~Group III~~ Group II

**Fig. 13.8.2 Special shackle** *(Part only shown)*
Dimensions in mm unless otherwise stated

# Part 4, Chapter 2

# Ferries, Roll on-Roll off Ships and Passenger Ships

**Effective date 1 January 2009**

## ■ *Section 8*
## Bow doors and inner doors

### 8.2 General

*8.2.3* Where bow doors lead to a complete or long forward enclosed superstructure, or to a long non-enclosed superstructure which is fitted to attain minimum bow height equivalence, an inner door is to be fitted. The inner door is to be part of the collision bulkhead. Where a sloping vehicle ramp forming the collision bulkhead above the freeboard deck is arranged, the inner door may be omitted if the ramp is weathertight over its complete length and fulfils the requirements of Pt 3, Ch 3 concerning the position of the collision bulkhead. When considering the position of the collision bulkhead, any ramp attached to the main ramp forming a collision bulkhead is to be considered part of the collision bulkhead. *See also* Pt 3, Ch 3,4.5.2.

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